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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,874	07/28/2003	Ranald J. Hay	1595-001	5578

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EXAMINER
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PRITCHETT, JOSHUA L

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/629,874

Applicant(s)

HAY, RANALD J.

Examiner

Joshua L. Pritchett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This action is in response to Amendment after non-final rejection filed September 8, 2005. Claims 1, 2, 6, 7, 11, 14, 17 and 19 have been amended as requested by the applicant.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jasgur (US 3,567,309).

With regard to claims 1, 6, 11, and 14, Jasgur discloses the invention as claimed--both a system and, by straightforward extension of the structural teachings of same, a method for enhancing visibility in the presence of specular media, said system (which in use meets the claimed method teachings) comprising: (a) a light source (light source 19 in Fig. 2) including, or coupled to, a source polarization mechanism (id. first polarizing means 21) for generating polarized light that is substantially polarized at a light source polarization angle (see Fig. 2); (b) an observation filter (id. : second polarizing means 23) having a filter polarization angle of (read

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an observation filter having a filter polarization angle corresponding to) (i) substantially maximum light attenuation, or (ii) substantially minimum light attenuation (both of these conditions (i.e., (i) and (ii)) being equally achievable via appropriate rotation of observation filter 23 of Jasgur; Jasgur lacks specific reference to adjusting the filter polarization angle. Jasgur, however, does provide an explicit teaching of a mechanism--namely, the small rotating tab 24 arcuately moveable in slot 25--for adjusting the filter polarization mechanism (and thus, simultaneously, said filter polarization angle) relative to said source polarization mechanism (read: angle). See column 3, lines 33-39. Jasgur further teaches improving visual contrast between a distant scene and the interposing specular media by reducing or minimizing glare from the interposing specular media without regard to reducing reflectivity from any specularly reflecting object in the distant scene (col. 1 lines 61-64), and wherein the distant object is situated at least two meters from the observation filter (col. 2 lines 5-7). The examiner interprets the Jasgur statement, "glare and other undesired reflections" to mean that the Jasgur invention does in fact filter out visual noise from interposing specular media. The examiner interprets the objective of "magnifying means so that even greater detailed observation can be made" to mean that the Jasgur reference is capable of viewing objects from a distance of at least two meters. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified both the system and, by extension, the implicit method teachings of Jasgur such that a mechanism for adjusting the source polarization mechanism relative to the filter polarization angle--such teaching already explicitly disclosed by Jasgur w/r/t the orientation of said observation filter--for at least the purpose polarization angle relative to the filter polarization angle so as of varying the source to achieve improved visual contrast of specular

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media. Moreover, it would have also been obvious to one having ordinary skill in the art at the time the invention was made to have so modified the invention of Jasgur for such purpose, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954).

With regard to dependent claims 2 and 7, it is noted that although Jasgur does not expressly disclose wherein said interposing specular media comprise at least one of water droplets, ice, snow, fog, rain, sleet, hail, dirt, metallic particles, and particles of sand, the reference does disclose a system for enhancing visibility in the presence of specular media, and even though a particular object of the invention is to provide a viewing device adapted for use by doctors, dentists, and biologists for examination of tissue, external skin area, internal mucous membranes, and the like (see col. 1, 69-72), such uses of the invention are merely exemplary and one can easily imagine the invention of Jasgur being used, for the sake of example, by a geologist, in which case said interposing specular media would indeed comprise at least one of dirt, metallic particles, particles of sand, etc. in point of fact, since virtually all volumes of air that haven't been subjected to extreme filtering processes contain (under favorable viewing conditions) visible quantities of one reasonably could assert that even when used by doctors, dentists, and biologists, the invention of Jasgur is used in environments in which specular media comprising at least one of dirt etc., is/are indeed interposed between an object to be viewed and said system.

With regard to claims 3-5 and 8-10, Applicant is again apprised that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954).

With regard to claims 12 & 15, Jasgur provides, implicitly if not explicitly, the recited teachings wherein said source polarization mechanism polarizes light at an angle within approximately thirty degrees of perpendicular to said glare-producing surface.

With regard to claims 13 & 16, it is again noted that the application of the invention of Jasgur is not limited to doctors, dentists, and biologists. For this reason, one can reasonably imagine said invention being utilized in environments in which said glare-producing surface would be at least one of the surface of a body of water, a concrete surface, an asphalt surface, and a surface of a building.

With regard to independent claims 17 & 19, Jasgur discloses the invention as claimed and discussed above in the rejection of claims 1, 6, 11 and 14 EXCEPT FOR explicit teachings wherein said invention (both system and method) is infrared- based for enhancing night vision in the presence of an object that produces infrared glare. Night vision systems, however, are notoriously old and well known in the viewing art, as are sources, polarizers, and filters of infrared light, and the extension of the teachings of Jasgur to applications in which glare results not from a source of visible light but instead from a source of infrared light amounts, in essence, to a straightforward extension of the visible-light teachings disclosed by Jasgur to the infrared region of the electromagnetic spectrum. Alternatively, since incandescent sources of light (like that depicted as 19 in Fig. 2 of Jasgur) emit a majority of their photons in the infrared region of the electromagnetic spectrum, and further since many individuals can visually perceive at least near-infrared radiation (700-780 nm), one could reasonably assert that Jasgur does in fact explicitly teach an invention (system and method) that comprises an infrared light source and associated IR filter and polarizer that, taken together,

mitigate glare both in the visible and infrared regions of the electromagnetic spectrum (the enhancing night vision/visibility limitations recited in the preambles of these claims qualifying merely as intended uses of said invention and, as such, not having been afforded patentable weight).

And finally, with regard to claims 18 & 20, Applicant is again apprised that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954).

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sley (US 6,646,801).

Regarding claims 1, 2, 6, 7, 11, 13, 14 and 16, Sley teaches a system for enhancing visibility of a distant outdoor scene containing visual information capable of substantially degrading atmospheric visibility (Fig. 4) the system comprising a light source (30) capable of illuminating the distant outdoor scene, the light source including, or coupled to, a source polarization mechanism (40) for generating polarized light that is substantially polarized at a light source polarization angle; an observation filter (50) for filtering the light the observation filter having a filter polarization angle of substantially maximum or minimum light attenuation (Fig. 1; unmatched polarization angle) and a mechanism for adjusting the source polarization mechanism (col. 4 lines 15-30) relative to the filter polarization angle so as to improve visual contrast between the distant outdoor scene, wherein visual contrast is improved by reducing or minimizing glare without regard for reducing glare from any reflecting object in the distant outdoor scene, and wherein the distant outdoor scene is situated at least two meters from the observation filter (Fig. 4). Sley lacks specific use of specular reflecting particles. Sley suggests

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that the system can be used in fog (col. 4 lines 42-47). Sley teaches that the system can be used with fog lights as the light source. Fog lights are used in fog and therefore Sley suggests using the system in fog to reduce glare. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Sley system used in fog as suggested by Sley for the purpose of allowing a user to reduce the glare seen when using fog lights (col. 4 lines 45-47).

Regarding claims 3-5, 8-10, 18 and 20, Sley teaches the both the filter and source polarization mechanism are adjustable (Figs. 2-3; col. 4 lines 15-30).

Regarding claims 12 and 15, Sley teaches wherein the source polarization mechanism polarizes light at an angle within approximately thirty degrees of perpendicular to glare producing surface (Fig. 4). Fig. 4 shows the use of the system while driving. While the car is driving the light angle relative to glare producing surfaces changes from nearly 0 degrees to nearly 90 degrees as an object is approached and passed. Therefore the claimed angle is taught by the Sley reference.

Regarding claims 17 and 20, Sley teaches the invention as claimed but lacks reference to the use of infrared light. It is extremely well known in the art to use infrared light for outdoor observation to view objects that cannot be seen using light within the visual spectrum. Official Notice is taken. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Sley invention include an infrared light source as is known in the art for the purpose of viewing objects that cannot be seen in the infrared spectrum such as body heat.

### *Response to Arguments*



Applicant's arguments filed September 8, 2005 have been fully considered but they are not persuasive.

In response to applicant's argument that the Jasgur reference is not capable of use in an outdoor scene, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Applicant argues that because the Jasgur invention is typically used in close relation to the object viewed the Jasgur invention would not be capable of use at greater than two meters. The light sources used in doctor and dentist offices typically provide enough illumination to view an object two meters away. Therefore Jasgur invention meets all the structural limitations of the claimed invention and would be capable of performing any claimed function.

Applicant further argues that the examiner incorrectly interprets Jasgur's statement of "glare and other undesired reflections" to include specularly reflecting particles. The reflections produced by specularly reflecting particles are undesired reflections of the light that distort the observed image. This is the problem the current application attempts to solve. If the reflections of the specularly reflecting particles are not undesired, the current application has no use.

Applicant argues that using the Jasgur invention while driving a car would be dangerous. There are no limitations in the claims regarding use of the system in a car or other vehicle. The claim further lacks any reference to producing a three dimensional image.

*Conclusion*


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318.

The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLP



**DREW A. DUNN**  
**SUPERVISORY PATENT EXAMINER**